

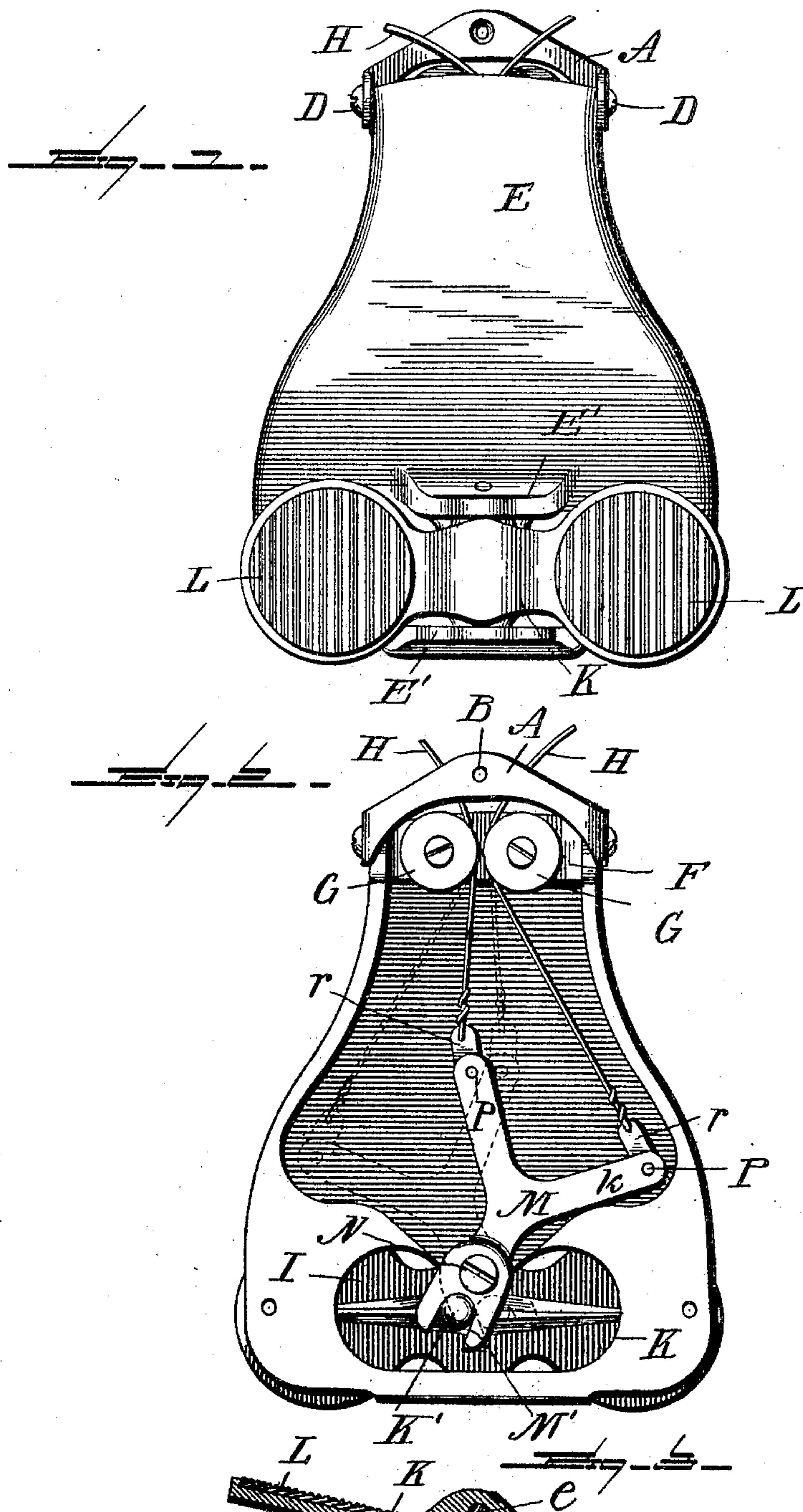
No. 682,347.

Patented Sept. 10, 1901.

D. P. SIMS.
FOOT SWITCH.

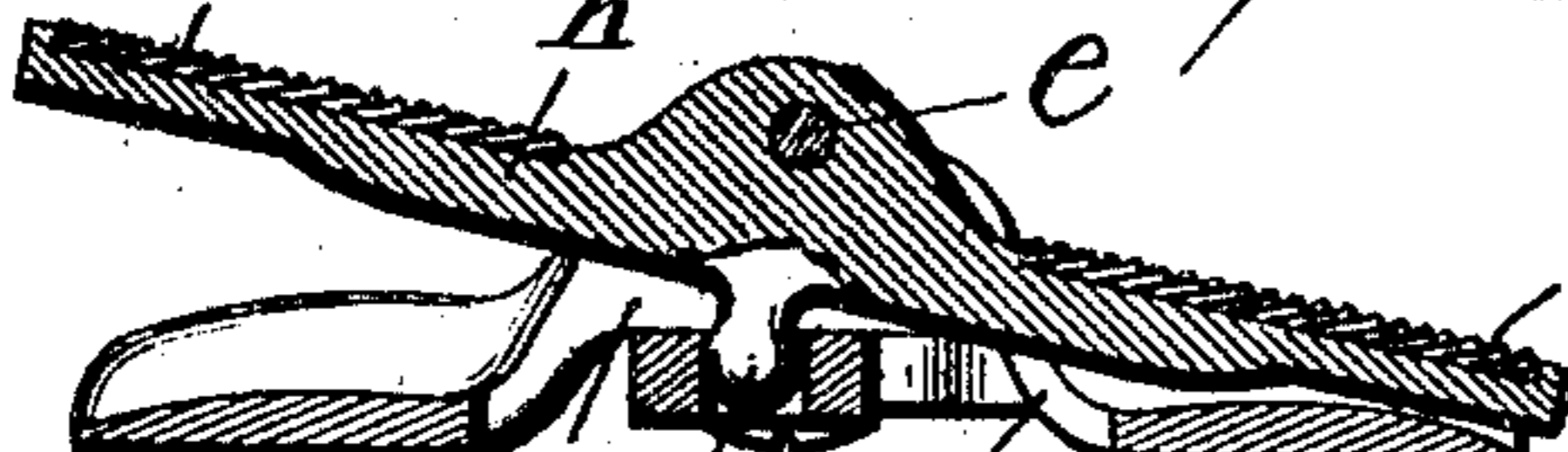
(Application filed Mar. 22, 1901.)

(No Model.)



WITNESSES:

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DAVID P. SIMS, OF LINCOLN, NEBRASKA.

FOOT-SWITCH.

SPECIFICATION forming part of Letters Patent No. 682,347, dated September 10, 1901.

Application filed March 22, 1901. Serial No. 52,423. (No model.)

To all whom it may concern:

Be it known that I, DAVID P. SIMS, a citizen of the United States, residing at Lincoln, in the county of Lancaster, State of Nebraska, have invented certain new and useful Improvements in Foot-Switches; and I do declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in foot-operated switches; and it consists of a device adapted for use in operating valve-regulating apparatus for water-motors of the type illustrated in Letters Patent No. 660,317 and also for use in connection with driving mechanism for dental instruments.

More specifically, the invention comprises a hinged plate secured to a swivel-plate and carrying the foot-tread, which is pivoted at its middle portion on the hinged plate and provided with a ball-bearing consisting of an integral round-headed lug which rests in the forked end of a Y-shaped member, to which the cables are attached, which cables are connected to the apparatus to be actuated as the tread is tilted.

The invention will be hereinafter more fully described and then specifically defined in the appended claims and is illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which—

Figure 1 is a plan view of my improved foot-switch. Fig. 2 is a bottom plan view of the device. Fig. 3 is a central longitudinal sectional view through the tread-plate, the ball-bearing, and forked end of the cable-actuating member.

Reference now being had to the details of the drawings by letter, A designates a swivel-yoke, which is designed to be held to the floor by means of a screw B and so mounted as to rotate freely on said screw as a pivot. The ends of this yoke, which are angular, are perforated to receive the pivot-screws D, on which the plate E is mounted, thus having a

hinged relation with said yoke. The hinged end of said plate E is recessed, as at F, and in this recessed portion are mounted the grooved pulleys G, the adjacent edges of which are nearly in contact with each other, so as to retain the cables H, which run on said pulleys.

In the upwardly-projecting lugs E' is mounted a pin, on which the foot-tread K is journaled, said pin passing through a centrally-disposed aperture in the tread. The portions of the plate E directly underneath the tilting ends of said foot-tread are cut away, as shown, so as not to interfere with the ends of the tread when one or the other end thereof is depressed. The ends of the tread are preferably rounded and recessed to receive the rubber elastic pads L. This foot-tread has a lug K' on its under side at its middle portion. M is a cable-actuating member pivoted on the screw or pin N, adjacent to the opening I in the hinged plate. This cable-actuating member has a slot M', in which is the rounded end of said lug K', whereby as the foot-tread is tilted said cable-actuating member is rocked on its pivot. The arms of the forked end of said member M are slotted to receive the plates R, which are pivoted on the pins P, passing through the ends of said arms. To these plates are fastened the ends of the cables H, the other ends of which may be attached to any apparatus, as the valve-regulating devices, devices for actuating or regulating dental engines, &c., which may be regulated by pulling down on one or the other of said cables, accordingly as it may be desired to start or stop same. No regulating devices, however, are shown as attached to the upper ends of these cables, as they form no part of the present invention, which latter relates exclusively to the apparatus illustrated in the drawings and as hereinbefore described.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

1. A foot-operated switch, consisting of a swiveled yoke, a hinged plate connected thereto, a foot-tread pivoted to said plate, and a cable-actuating member mounted on the hinged plate, and actuated by the foot-tread, as set forth.

2. A foot-operated switch, consisting of a yoke swiveled on a stationary pin, a plate hinged to said yoke, a foot-tread pivoted to said plate, a cable-actuating member also
5 pivoted to said plate, an integral lug on the foot-tread having a rounded end and disposed in a slotted end of said cable-actuating member forming a ball-and-socket joint, as set forth.

10 3. A foot-operated switch consisting of a yoke a stationary pin on which said yoke is swiveled, a plate hinged to said yoke, a tread pivoted on a pin carried in lugs on said plate, a cable-actuating member pivoted to the un-
15 der side of said plate, an integral round-headed lug, on the under side of said tread, and disposed in a slotted end of said member, the grooved pulleys, and cables connected to the forked ends of said member,
20 and passed over said pulleys, as set forth.

4. A foot-operated switch comprising a yoke swiveled on a stationary pin, a plate hinged to said yoke, a foot-tread pivoted to said plate, an integral round-ended lug on the under side of said tread, a cable-actuat- 25
ing member pivoted to the under side of the hinged plate and having a slotted end engaging said lug, the forked ends of said member being slitted, plates pivoted in these slits cables secured to these plates, and the grooved 30
wheels mounted adjacent to each other and between which the cables are guided, as set forth.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

DAVID P. SIMS.

Witnesses:

JNO. SKIDMORE,
H. F. HELMS.